#6
W. Lawson
2/23/01

09/584477

File history of parent application provided by applicant on 2/22/01.

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UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/667,225	06/19/96	SKLAR	R	PD-A96005

26M1/0225

PATENT DOCKET ADMINISTRATION
HUGHES ELECTRONICS
BLDG C01 A126
PO BOX 80028
LOS ANGELES CA 90080-0028

EXAMINER	
GRANT, C	
ART UNIT	**PAPER NUMBER**
2602	4

DATE MAILED: 02/25/97

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.	Applicant(s)
08/667,225	SKLAR et al.
Examiner	**Group Art Unit**
Christopher Grant	2602

☐ Responsive to communication(s) filed on _____.

☐ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) *1-9* is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) *1-9* is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☒ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the in-seat video and audio distribution" in line 20. There is insufficient antecedent basis for this limitation in the claim. This limitation should be changed to --the video and audio distribution--.

Claim Objections

2. Claims 1-7 are objected to because reference characters corresponding to elements recited in the detailed description of the drawings and used in conjunction with the recitation of the same element or group of elements in the claims should be enclosed within parentheses so as to avoid confusion with other numbers or characters which may appear in the claims. MPEP § 608.01(m).

In claim 1, line 22, "57" should be changed to --(57)-- or "57" should be deleted.

In claim 7, line 5, "46b" should be changed to --(46b)-- or "46b" should be deleted.

3. Claims 1-8 are objected under 37 CFR 1.75. Although applicants claims meet the requirement of 35 U.S.C. § 112, second paragraph, i.e. the metes and bounds are determinable, the grammar or misuse of terms could be improved. Examples are:

In claim 1, line 4, "the passenger at that" should be changed to --a passenger at a--.

In claim 7, line 4, "are" should be deleted.

In claim 8, line 12, "seatusing" should be changed to --seat using--.

In claim 8, line 16, "the passenger at that" should be changed to --a passenger at a--.

It is in the best interest of the patent community that applicant, in his/her normal review and/or rewriting of the claims to take into consideration these editorial situations and make changes as necessary.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the

> differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-2, 4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Polivka et al. (Polivka), Muhlhauser et al. (Muhlhauser), Rabowsky et al. (Rabowsky) and Podowski et al. (Podowski).

Considering claim, 1 Polivka discloses a satellite television system that provides live television programming to passengers on an aircraft (see figure 3A) comprising the following:

a) an antenna (265, 266) (figure 6) comprising steering means (433, 432), see col. 12, lines 17-41;

b) antenna control means (270), see col. 8, lines 29-48, col. 12, lines 17-41; and

c) receiver (280-1) (figure 3A) with feedback status signal (305), see col. 9, lines 40 - 63.

Although Polivka discloses an antenna control means (270), he fails to specifically disclose

i) downconverting the received RF signals to provide left and right hand circularly polarized RF signals;

ii) a modulator, video and audio distribution system for distributing modulated signals to each passenger's seat, and

seat electronics circuitry comprising a demodulator, MPEG decoder and digital to analog converter and a tuner as recited in the claim.

Muhlhauser discloses a satellite receiver system comprising an antenna for receiving both left and right handed circular polarized RF signals. A downconverter is inherently present for frequency converting the RF signals. The advantages of Muhlhauser's system are that it is small in size, cost effective and has the ability to receive signals from different satellite systems (i.e. left hand circular polarized satellite systems as well as right hand circular polarized satellite systems). See col. 2, line 58 - col. 4, line 34 and figures 9A-9E.

Rabowsky discloses an entertainment distribution system in an aircraft comprising the following:

a) a modulator (96,100,104)(fig. 2);

b) a video and audio distribution system (22) (fig. 1) for distributing modulated signals to each passenger's seat and

c) seat electronics circuitry (VSEB (60) fig.1; detail structure in fig. 3) comprising a demodulator (116), decoder (130,131) and digital to analog converter (132, 133) and a tuner (156)(fig. 4).

Rabowsky's system facilitates transmission of a large number of audio/video signals which is adaptable for expansion, has less wiring and minimizes expense because of fewer component parts in an aircraft. See col. figures 1-4 and col. 6, lines 21-38.

However, Rabowsky fails to disclose a MPEG decoder as recited in the claim.

Podowski discloses an audio/video distribution system in an aircraft comprising a MPEG encoding/decoding in the distribution of audio/video programs for the purpose of minimizing storage requirements and transmission bandwidth. See MPEG decoder (54) (fig. 5), col. 3, lines 30-39 and col. 7, lines 5-17.

Therefore, it would have been obvious to one of ordinary skill in the art to modify Polivka's system to include downconverting the received RF signals to provide left and right hand circularly polarized RF signals, as taught by Muhlhauser, for the advantages of providing a small size and low cost system having the ability to receive RF signals from left and right handed satellite systems.

Further, it would have been obvious to one of ordinary skill in the art to modify the combined systems of Polivka and Muhlhauser to include a modulator, video and audio distribution system for distributing modulated signals to each passenger's seat and seat electronics circuitry comprising a demodulator, decoder and digital to analog converter and a tuner, as taught by Rabowsky, for the advantages of distributing a large number of audio/video signals to each passenger and additionally the system is adaptable for expansion, has less wiring and minimizes expense.

Moreover, it would have been obvious to one of ordinary skill in the art to modify the combined systems of Polivka, Muhlhauser and Rabowsky to include a MPEG decoder, as taught by Podowski, for the advantage of minimizing storage requirements and transmission bandwidth in an aircraft distribution system.

Claim 2 is met by the combined systems of Polivka, Muhlhauser, Rabowsky and Podowski, wherein the modulator comprising a combiner is specifically met by Rabowsky's modulator (96,100,104) comprising combiner (104).

Claim 4 is met by the combined systems of Polivka, Muhlhauser, Rabowsky and Podowski, wherein the antenna controller is met by Polivka's controller (270) and the antenna interface is inherently met by Muhlhauser's circuit that receives and downverts the left and right handed circular polarized signals.

Considering claim 7, the combined systems Polivka, Muhlhauser, Rabowsky and Podowski fail to specifically disclose, a mother board, receiver card, a computer processor, and flash disk as recited in the claim.

However, a mother board, receiver, a computer processor and flash disk are routine devices found in DBS or DSS receivers for the purposes of holding components, receiving, processing and

storing program signals broadcast from satellite(s). Any standard video receiver must have a mother board for holding components, a receiver device for receiving signals, a processor for processing signals and a memory device for storing instructions and/or received video information.

Therefore, it would have been obvious to one of ordinary skill in the art to modify the combined systems Polivka, Muhlhauser, Rabowsky and Podowski to include a mother board, a receiver, a computer processor and flash disk for the advantages of holding components, receiving, processing and storing video programs transmitted from satellite(s).

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Polivka, Muhlhauser, Rabowsky and Podowski as applied to claim 1 above, and further in view of Tagawa et al. (Tagawa).

Considering claim 3, the combined systems of Polivka, Muhlhauser, Rabowsky and Podowski fail to specifically disclose that the seat electronics circuitry comprises game electronics for displaying games on the display as recited in the claim.

Tagawa discloses an entertainment system in an aircraft comprising a seat electronics circuitry (30) comprising game electronics (35d) for the advantage of providing game as another source of entertainment for individual passengers on an aircraft.

See col. 5 line 55 - col. 6, line 28.

Therefore, it would have been obvious to one of ordinary skill in the art to modify the combined systems of Polivka, Muhlhauser, Rabowsky and Podowski to include seat electronics circuitry comprising game electronics for displaying games on the display, as taught by Tagawa, for the advantage of providing games as another choice of entertainment for individual passengers on an aircraft.

7. Claim 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Polivka, Muhlhauser and Rabowsky.

Considering claim, 8 Polivka discloses a satellite television system that provides live television programming to passengers on an aircraft (see figure 3A). Note the following: a) steering step is performed by an antenna (265, 266) (figure 6) comprising steering means (433, 432), see col. 12, lines 17-41; b) processing step is performed by receiver (280-1) (figure 3A) with feedback status signal (305), see col. 9, lines 40 - 63.

Polivka fails to specifically disclose the following steps:

i) downconverting the received RF signals to provide left and right hand circularly polarized RF signals;

ii) modulating, distributing modulated and encoded video and audio signals, receiving the modulated and encoded video and audio signals at seat electronics circuitry, and

demodulating, decoding and D/A converting the modulated and encoded video and audio signals at the seat as recited in the claim.

Muhlhauser discloses a satellite receiver system comprising an antenna for receiving both left and right handed circular polarized RF signals. A downconverter is inherently present for frequency converting the RF signals. The advantages of Muhlhauser's system are that it is small in size, cost effective and has the ability to receive signals from different satellite systems (i.e. left hand circular polarized satellite systems as well as right hand circular polarized satellite systems). See col. 2, line 58 - col. 4, line 34 and figures 9A-9E.

Rabowsky discloses an entertainment distribution system in an aircraft comprising the following:

a) a modulator (96,100,104) (fig. 2) for modulating;

b) a video and audio distribution system (22) (fig. 1) for distributing modulated signals to each passenger's seat and

c) seat electronics circuitry (VSEB (60) fig.1; detail structure in fig. 3) for receiving modulated and encoded video and audio signals comprising a demodulator (116), decoder (130,131) and a digital to analog converter (132, 133). Rabowsky's system facilitates transmission of a large number of audio/video signals which is adaptable for expansion, has less wiring and minimizes

expense because of fewer component parts in an aircraft. See col. figures 1-4 and col. 6, lines 21-38.

Therefore, it would have been obvious to one of ordinary skill in the art to modify Polivka's system to include downconverting the received RF signals to provide left and right hand circularly polarized RF signals, as taught by Muhlhauser, for the advantages of providing a small size and low cost system having the ability to receive RF signals from left and right handed satellite systems.

Further, it would have been obvious to one of ordinary skill in the art to modify the combined systems of Polivka and Muhlhauser to include modulating, distributing modulated and encoded video and audio signals, receiving the modulated and encoded video and audio signals at seat electronics circuitry, and demodulating, decoding and D/A converting the modulated and encoded video and audio signals at the seat, as taught by Rabowsky, for the advantages of distributing a large number of audio/video signals to each passenger and additionally the system is adaptable for expansion, has less wiring and minimizes expense.

Claim 9 is met by the combined systems of Polivka, Muhlhauser and Rabowsky, wherein the step of generating signals derived from the downconverted signal to steer the antenna and

lock it onto the RF signals received from satellite are specifically met by Polivka's steering discussed in col. 12, lines 17-41 and downconverting of polarized signals discussed by Muhlhauser.

Specification

8. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The claimed "a serial interface coupled between the controller and the receiver decoder..." as recited in claim 5, lines 3-4.

Allowable Subject Matter

9. Claims 5-6 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112 set forth in this Office action.

Note to applicant

10. The application number 08/667,222 and filing date 6/19/96 have been inserted on page 3.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Scribner et al. disclose distributing audio/video programs in an airplane.

Margis and Tangonan each disclose distributing audio/video programs received from satellite in an airplane.

Lalezari discloses circular polarized RF signals.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chris Grant whose telephone number is (703) 305-4755. The examiner can normally be reached on Monday-Friday from 8:00am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Peng, can be reached on (703) 305-4702. The fax phone number for this Group is (703) 305-3988.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4700.

Chris Grant

Chris Grant
February 15, 1997

Notice of References Cited

Application No.	Applicant(s)		
08/667,225	SKLAR et al.		
Examiner	Group Art Unit	Page 1 of 1	
Christopher Grant	2602		

U.S. PATENT DOCUMENTS

	DOCUMENT NO.	DATE		NAME	CLASS	SUBCLASS
A	5,524,272	06/04/96		Podowski	455	3.2
B	5,555,466	09/10/96		Scribner et al.	348	8
C	5,568,484	10/22/96		Margis	348	8
D	5,146,234	09/08/92		Lalezari	343	895
E	5,463,656	10/31/95		Polivka et al.	375	200
F	5,495,258	02/27/96		Muhlhauser et al.	343	753
G	5,289,272	02/22/94		Rabowsky et al.	348	8
H	4,866,515	09/12/89		Tagawa et al.	455	6.3
I						
J						
K						
L						
M						

FOREIGN PATENT DOCUMENTS

	DOCUMENT NO.	DATE	COUNTRY	NAME	CLASS	SUBCLASS
N	570,198 A2	11/18/93	European	Tangonan	H04N	7/22
O						
P						
Q						
R						
S						
T						

NON-PATENT DOCUMENTS

	DOCUMENT (Including Author, Title, Source, and Pertinent Pages)	DATE
U		
V		
W		
X		

Form PTO 948 (Rev. 10-94) U.S. DEPARTMENT OF COMMERCE - Patent and Trademark Office Application No. 8/667225

NOTICE OF DRAFTSPERSON'S PATENT DRAWING REVIEW

PTO Draftpersons review all originally filed drawings regardless of whether they are designated as formal or informal. Additionally, patent Examiners will review the drawings for compliance with the regulations. Direct telephone inquiries concerning this review to the Drawing Review Branch, 703-305-8404.

The drawings filed (insert date) 6/19/96

A. ✓ not objected to by the Draftsperson under 37 CFR 1.84 or 1.152.

B. ____ objected to by the Draftsperson under 37 CFR 1.84 or 1.152 as indicated below. The Examiner will require submission of new, corrected drawings when necessary. Corrected drawings must be submitted according to the instructions on the back of this Notice.

1. DRAWINGS. 37 CFR 1.84(a): Acceptable categories of drawings: Black ink. Color.
   - ___ Not black solid lines. Fig(s)____
   - ___ Color drawings are not acceptable until petition is granted. Fig(s) ____
2. PHOTOGRAPHS. 37 CFR 1.84(b)
   - ___ Photographs are not acceptable until petition is granted. Fig(s) ____
   - ___ Photographs not properly mounted (must use brystol board or photographic double-weight paper). Fig(s)____
   - ___ Poor quality (half-tone). Fig(s)____
3. GRAPHIC FORMS. 37 CFR 1.84 (d)
   - ___ Chemical or mathematical formula not labeled as separate figure. Fig(s)____
   - ___ Group of waveforms not presented as a single figure, using common vertical axis with time extending along horizontal axis. Fig(s)____
   - ___ Individuals waveform not identified with a separate letter designation adjacent to the vertical axis. Fig(s)____
4. TYPE OF PAPER. 37 CFR 1.84(c)
   - ___ Paper not flexible, strong, white, smooth, nonshiny, and durable. Sheet(s)____
   - ___ Erasures, alterations, overwritings, interlineations, cracks, creases, and folds copy machine marks not accepted. Fig(s) ____
   - ___ Mylar, velum paper is not acceptable (too thin). Fig(s) ____
5. SIZE OF PAPER. 37 CFR 1.84(f): Acceptable sizes:
   - 21.6 cm. by 35.6 cm. (8 1/2 by 14 inches)
   - 21.6 cm. by 33.1 cm. (8 1/2 by 13 inches)
   - 21.6 cm. by 27.9 cm. (8 1/2 by 11 inches)
   - 21.0 cm. by 29.7 cm. (DIN size A4)
   - ___ All drawing sheets not the same size. Sheet(s)____
   - ___ Drawing sheet not an acceptable size. Sheet(s) ____
6. MARGINS. 37 CFR 1.84(g): Acceptable margins:

Paper size

	21.6 cm. X 35.6 cm. (8 1/2 X 14 inches)	21.6 cm X 33.1 cm. (8 1/2 X 13 inches)	21.6 cm. X 27.9 cm. (8 1/2 X 11 inches)	21.0 cm. X 29.7 cm. (DIN Size A4)
T	5.1 cm. (2")	2.5 cm. (1")	2.5 cm. (1")	2.5cm.
L	.64 cm. (1/4")	.64 cm. (1/4")	.64 cm. (1/4")	2.5 cm.
R	.64 cm. (1/4")	.64 cm. (1/4")	.64 cm. (1/4")	1.5 cm.
B	.64 cm. (1/4")	.64 cm. (1/4")	.64 cm. (1/4")	1.0 cm.

Margins do not confonn to chart above.
Sheet(s)____
___Top (T) ___ Left (L) ___Right (R) ___Bottom (B)

7. VIEWS. 37 CFR 1.84(h)
   REMINDER: Specification may require revision to correspond to drawing changes.
   - ___ All views not grouped together. Fig(s)____
   - ___ Views connected by projection lines or lead lines. Fig(s)____
   - Partial views. 37 CFR 1.84(h) 2
   - ___ View and enlarged view not labled separatly or properly. Fig(s)____
   - Sectional views. 37 CFR 1.84 (h) 3
   - ___ Hatching not indicated for sectional portions of an object. Fig(s)____
   - ___ Cross section not drawn same as view with parts in cross section with regularly spaced parallel oblique strokes. Fig(s)____
8. ARRANGEMENT OF VIEWS. 37 CFR 1.84(i)
   - ___ Words do not appear on a horizontal, left-to-right fashion when page is either upright or turned so that the top becomes the right side, except for graphs. Fig(s)____
9. SCALE. 37 CFR 1.84(k)
   - ___ Scale not large enough to show mechanism with crowding when drawing is reduced in size to two-thirds in reproduction. Fig(s)____
   - ___ Indication such as "actual size" or scale 1/2" not permitted. Fig(s)____
10. CHARACTER OF LINES, NUMBERS, & LETTERS. 37 CFR 1.84(l)
    - ___ Lines, numbers & letters not uniformly thick and well defined, clean, durable, and black (except for color drawings). Fig(s)____
11. SHADING. 37 CFR 1.84(m)
    - ___ Solid black shading areas not permitted. Fig(s)____
    - ___ Shade lines, pale, rough and blurred. Fig(s)____
12. NUMBERS, LETTERS, & REFERENCE CHARACTERS. 37 CFR 1.84(p)
    - ___ Numbers and reference characters not plain and legible. 37 CFR 1.84(p)(l) Fig(s)____
    - ___ Numbers and reference characters not oriented in same direction as the view. 37 CFR 1.84(p)(l) Fig(s)____
    - ___ English alphabet not used. 37 CFR 1.84(p)(2) Fig(s)____
    - ___ Numbers, letters, and reference characters do not measure at least .32 cm. (1/8 inch) in height. 37 CFR(p)(3) Fig(s)____
13. LEAD LINES. 37 CFR 1.84(q)
    - ___ Lead lines cross each other. Fig(s)____
    - ___ Lead lines missing. Fig(s)____
14. NUMBERING OF SHEETS OF DRAWINGS. 37 CFR 1.84(t)
    - ___ Sheets not numbered consecutively, and in Arabic numerals, beginning with number 1. Sheet(s)____
15. NUMBER OF VIEWS. 37 CFR 1.84(u)
    - ___ Views not numbered consecutively, and in Arabic numerals, beginning with number 1. Fig(s)____
    - ___ View numbers not preceded by the abbreviation Fig. Fig(s)____
16. CORRECTIONS. 37 CFR 1.84(w)
    - ___ Corrections not made from prior PTO-948. Fig(s)____
17. DESIGN DRAWING. 37 CFR 1.152
    - ___ Surface shading shown not appropriate. Fig(s)____
    - ___ Solid black shading not used for color contrast. Fig(s)____

COMMENTS:

ATTACHMENT TO PAPER NO. 4 REVIEWER WAS DATE 11/19/96

PATENT
PD-A96005

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

71477 U.S. PTO
05/09/97

In re Application of:
Richard E. Sklar, et al
Serial No. 08/667,225
Filed: June 19, 1996
For: DISTRIBUTION OF A LARGE NUMBER OF LIVE TELEVISION PROGRAMS TO INDIVIDUAL PASSENGERS IN AN AIRCRAFT

Date: May 6, 1997
Group Art Unit: 2602
Examiner: C. Grant

2602

RECEIVED
MAY 22 97
GROUP 2600

AMENDMENT TRANSMITTAL LETTER

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

Transmitted herewith is an amendment in the above-identified application.

____ Applicant petitions for an extension of time for 3 months(s) to respond to the Office Action dated . If an additional extension of time is required, please consider this a petition therefor.

Fee $_____

____ An extension for _____ months(s) has already been secured; the fee paid therefor of is deducted from the total fee due for the total months of extension now requested. $_____

Extension fee due with this request $_____

X___ Applicant believes that no extension of time is required to respond to the Office Action dated . However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition for extension of time.

X___ No additional fee for claims is required.

____ The fee for claims has been calculated as shown below:

	CLAIMS AS AMENDED						
	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR		PRESENT EXTRA	RATE	ADDITIONAL FEE
TOTAL CLAIMS	11	minus	20*	=	0	x $ 22.00	$
INDEPENDENT CLAIMS	3	minus	3**	=	0	x $ 80.00	$
MULTIPLE DEPENDENT CLAIMS						+ $ 260.00	$ -0-
TOTAL ADDITIONAL FEE FOR THIS AMENDMENT:							$

Charge $ to Deposit Account No. 08-3250 of Hughes Electronics, Los Angeles, California. Please charge any additional fees for claims or credit overpayment to Deposit Account No. 08-3250. If any additional extension fee is required, please charge to Deposit Account No. 08-3250. **This form is submitted in triplicate.**

Respectfully submitted,

Georgann S. Grunebach, Registration No. 33,179

I hereby certify that this correspondence is being deposited with the United States Postal Service as first-class mail in an envelope addressed to the Assistant Commissioner for Patents, Washington, DC 20231 on May 6, 1997.

Georgann S. Grunebach, Registration No. 33,179

HUGHES ELECTRONICS
P.O. Box 80028
Bldg. C1, Mail Station A-126
Los Angeles, CA 90080-0028
Telephone: 310/568-6625

* If less than 20, insert 20
** If less than 3, insert 3

05/09/97

PATENT
PD-A96005

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

#5/a
Mail
6-10-97

In re Application of: RICHARD E. SKLAR ET AL.
Serial No.: 08/667,225
Filed: June 19, 1996
For: DISTRIBUTION OF A LARGE NUMBER OF LIVE TELEVISION PROGRAMS TO INDIVIDUAL PASSENGERS IN AN AIRCRAFT

Date: May 6, 1997

Group Art Unit: 2602

Examiner: C. Grant

notified
6-10-97

AMENDMENT

Commissioner of Patents and Trademarks
Washington, D. C. 20231

Sir:

In response to the Office Action mailed February 25, 1997, please amend the above-identified patent application as follows.

IN THE CLAIMS:

Please amend the following Claims as indicated.

1. (Amended) A satellite television system that provides a large number of television channels to each passenger on an aircraft derived from direct broadcast satellites, said system comprising:

an antenna that comprises steering means for steering the antenna toward the satellite in response to control signals supplied thereto;

antenna control means for providing the control signals to the antenna and for processing status signals derived from the antenna to steer the antenna so that it is locked onto encoded RF signals transmitted by the satellite, and for downconverting the ~~received~~ encoded RF signals to provide encoded left hand and right hand circularly polarized RF signals that correspond to a plurality of encoded television channels;

a receiver coupled to the antenna control means for processing the downconverted encoded RF signals to provide encoded video and audio output signals corresponding to the plurality of television channels, and for feeding back the status signals to the antenna control means which are used to steer the antenna to lock it onto the RF signals received from the satellite;

a modulator coupled to the receiver for modulating the encoded video and audio signals;

a video and audio distribution system coupled to the modulator for distributing the modulated and encoded video and audio signals to each passenger's seat;

seat electronics circuitry coupled to the [in-seat] video and audio distribution system that comprises a demodulator, [an MPEG] a decoder and digital to analog converters, and a tuner [57], for demodulating, decoding and D/A converting the modulated and encoded video and audio signals into signals that may be viewed and heard by [the] a passenger at [that] a seat by way of a display and headphones.

5. (Amended) The system of Claim 4 wherein the antenna controller comprises:

a controller;

[a serial interface coupled between the controller and the receiver decoder for coupling the status signals to the controller;]

an RS485 interface coupled between the controller and the antenna interface unit for coupling the control and status signals to the controller; and

an ARINC 429 interface coupled between the controller and a navigation system for coupling inertial reference signals provided by the navigation system to the controller which are used to generate steering signals that steer the antenna toward the satellite.

7. (Amended) The system of Claim 1 wherein the receiver comprises:

a passive mother board having first and second computer busses;

a receiver card coupled to the first computer bus;

a computer processor [are] coupled to the first computer bus; and

a flash disk card coupled to the second bus [46b] for storing video, audio and control signals.

8. (Amended) [Method] A method of providing a large number of television channels derived from satellites of a direct broadcast satellite system to each passenger on an aircraft, said method comprising the steps of:

steering an antenna toward the satellites;

downconverting ~~received~~ encoded RF signals transmitted by the satellites to provide encoded left hand and right hand circularly polarized RF signals that correspond to a plurality of encoded television channels;

processing the downconverted encoded RF signals to provide encoded video and audio output signals corresponding to the plurality of television channels;

modulating the encoded video and audio signals;

distributing the modulated and encoded video and audio signals to each passenger's [seatusing] seat using a video and audio distribution system;

receiving the modulated and encoded video and audio signals at seat electronics circuitry;

demodulating, decoding and D/A converting the modulated and encoded video and audio signals into signals that may be viewed and heard by [the] a passenger at [that] a seat by way of a display and headphones.

Please add the following new Claims.

--10. A satellite television system that provides a large number of television channels to each passenger on an aircraft derived from direct broadcast satellites, said system comprising:

an antenna that comprises steering means for steering the antenna toward the satellite in response to control signals supplied thereto;

antenna control means for providing the control signals to the antenna and for processing status signals derived from the antenna to steer the antenna so that it is locked onto RF signals transmitted by the satellite, and for downconverting received encoded RF signals to provide encoded left hand and right hand circularly polarized RF signals that correspond to a plurality of encoded television channels, and wherein the antenna control means comprises:

an antenna controller coupled to the receiver for processing status signals derived therefrom that comprises an RS485 interface coupled between the controller and the antenna interface unit for coupling the control and status signals to the controller, and an ARINC 429 interface coupled between the controller and a navigation system for coupling inertial reference signals provided by the navigation system to the controller which are used to generate steering signals that steer the antenna toward the satellite; and

an antenna interface unit coupled between the antenna and the receiver decoder for downconverting the received RF signals to provide the left hand and right hand circularly polarized RF signals that contain different sets of television

channels, and coupled between the antenna controller and the antenna for coupling the control and status signals therebetween;

a receiver coupled to the antenna control means for processing the downconverted encoded RF signals to provide encoded video and audio output signals corresponding to the plurality of television channels, and for feeding back the status signals to the antenna control means which are used to steer the antenna to lock it onto the RF signals received from the satellite;

a modulator coupled to the receiver for modulating the encoded video and audio signals;

a video and audio distribution system coupled to the modulator for distributing the modulated and encoded video and audio signals to each passenger's seat;

seat electronics circuitry coupled to the video and audio distribution system that comprises a demodulator, a decoder and digital to analog converters, and a tuner, for demodulating, decoding and D/A converting the modulated and encoded video and audio signals into signals that may be viewed and heard by a passenger at a seat by way of a display and headphones.--

--11. The system of Claim 10 wherein the antenna interface unit comprises:

a downconverter for downconverting the RF signals received from the antenna and for outputting the downconverted RF signals to the receiver;

a servo controller coupled between the RS485 interface of the antenna controller and the antenna for processing antenna position signals to generate elevation motor drive signals that are supplied to the antenna, and for outputting azimuth control signals;

a servo power amplifier coupled between the servo controller and the antenna for supplying power to the antenna, and for processing motor position control signals derived from the antenna and the azimuth control signals derived from the servo controller to generate azimuth motor drive signals that are supplied to the antenna.--

REMARKS

Regarding the status of the present application, Claims 1, 5, 7 and 8 have been amended, Claims 10 and 11 have been added, and Claims 1-11 are presently pending in this application. Reconsideration of this application is respectfully requested.

The specification was objected to as failing to provide proper antecedent basis for the claimed subject matter. The "serial interface" recited in Claim 5 should not have been included therein or in the specification. This element has been deleted from Claim

5, and the specification has not been amended to include it. This separate interface is also not shown in the drawing figures. Accordingly, withdrawal of the Examiner's objection is respectfully requested.

The Examiner is thanked for inserting the application number (08/667,222) and filing date (June 19, 1996) of the cited copending application on page 3 of the specification.

Claims 1-7 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 has been amended to remedy the antecedent basis issue noted by the Examiner. Accordingly, withdrawal of the Examiner's objection is respectfully requested.

Claims 1-7 were objected to because reference characters corresponding to elements recited in the detailed description of the drawings. The reference characters have been removed from Claims 1 and 7. Accordingly, withdrawal of the Examiner's objection is respectfully requested.

Claims 1-8 were objected under 37 CFR 1.75. The Claims have been amended to improve the grammar and use of terms in the manner suggested by the Examiner. Accordingly, withdrawal of the Examiner's objection is respectfully requested.

Claims 1, 2, 4 and 7 were rejected under 35 U.S.C. § 103 (a) as being unpatentable over U.S. Patent No. 5,463,656 issued to Polivka et al., U.S. Patent No. 5,495,258 issued to Muhlhauser et al., U.S. Patent No. 5,289,272 issued to Rabowsky et al. and U.S. Patent No. 5,524,272 issued to Podowski et al.

In the present invention, downconverted RF signals received from the antenna are processed by a single receiver to provide encoded video and audio signals containing a plurality of television channels. The receiver does not decode or D/A convert the downconverted signals. The encoded video and audio signals containing the plurality of channels are modulated in a modulator, which also is used as a combiner to modulate signals derived from other video and audio sources, such as video and audio tape players. The modulated and encoded video and audio signals containing the plurality of channels are routed to a video and audio distribution system that distributes the encoded video and audio signals to each passenger's seat. Seat electronics circuitry is located at each passenger's seat that contains a demodulator, decoder, digital to analog converter and a tuner. The seat electronics circuitry demodulates,

decodes and A/D converts the modulated and encoded video and audio signals into signals that may be viewed and heard by the passenger at that seat. This processing architecture is different from those of the cited patents.

The Polivka et al. patent discloses a system for conducting video communications over a satellite communication link using conformal phased array antennas disposed on the aircraft. The conformal phased array antennas are electronically steered so that they are locked onto video signals broadcast from a relay satellite. An antenna control processor is provided that controls switches that selectively switch the port or starboard arrays to a plurality of demodulator stages. A polarization receiver is coupled to the phased array antennas wherein a data channel receiver is used to phase lock a polarization channel receiver. A tracking error signals is generated and the phase shift elements of the phased array antennas are appropriately adjusted to steer the beam pattern of the phase array antennas at the relay satellite. The Polivka et al. patent does not disclose or suggest a system that distributes television programs to each seat of an aircraft. Thus, the Polivka et al. system is different from the present invention.

As was admitted by the Examiner, there is no disclosure or suggestion in the Polivka et al. patent that the control processor downconverts received encoded RF signals to provide encoded left hand and right hand circularly polarized RF signals that correspond to a plurality of encoded television channels. There is no disclosure or suggestion in the Polivka et al. patent regarding a modulator coupled to a receiver for modulating the encoded video and audio signals. There is no disclosure or suggestion in the Polivka et al. patent regarding a video and audio distribution system coupled to the modulator for distributing the modulated and encoded video and audio signals to each passenger's seat. There is no disclosure or suggestion in the Polivka et al. patent regarding seat electronics circuitry coupled to the video and audio distribution system that comprises a demodulator, a decoder and digital to analog converters, and a tuner, for demodulating, decoding and D/A converting the modulated and encoded video and audio signals into signals that may be viewed and heard by a passenger at a seat by way of a display and headphones.

The Examiner has therefore attempted to combine, in a piecemeal manner, the teachings of the other cited patents which disclose certain elements of the presently claim invention, but which are specifically related to the teachings of the Polivka et al. patent. It is respectfully submitted that combining of the cited references in the manner

indicated by the Examiner can only be done using hindsight reconstruction. As will be discussed below, the cited references contain no teachings regarding how they could be combined to produce the present invention.

The Muhlhauser et al. patent discloses a multiple beam array antenna system that has right-handed circularly polarized subarrays and left-handed circularly polarized subarrays. Combined signals from the right-handed subarrays are coupled to an first electromagnetic lens and outputs from the left-handed subarrays are coupled to an second electromagnetic lens. A satellite selection matrix output circuit allows a user to tap into signals derived from satellites that transmit right-handed circularly polarized signals, satellites that transmit left-handed circularly polarized signals, and satellites that transmit linearly polarized signals.

Irrespective of whether the Muhlhauser et al. system contains a downconverter or not, there is no disclosure or suggestion in this patent regarding downconverting encoded left hand and right hand circularly polarized RF signals that correspond to a plurality of encoded television channels. The Muhlhauser et al. patent does not disclose or suggest modulating or processing encoded video and audio signals as is performed in the present invention.

The Rabowsky et al. patent discloses a video and audio distribution system for use in an aircraft. In this system, analog video signals are modulated upon individual RF carriers at a low frequency. Digitized audio signals and data are modulated upon an RF carrier at a sufficiently high frequency to avoid interference with the modulated video signals. The Rabowsky et al. patent does not disclose or suggest modulating or processing encoded video and audio signals as is performed in the present invention. Furthermore, the Rabowsky et al. patent does not disclose or suggest the use of decoders or decoding the encoded video and audio signals at the seat electronics unit.

The Podowski et al. patent discloses a communication system wherein a distribution center receives compressed data signals (program material) and disseminates it to a plurality of aircraft terminals that are in communication with one or ore parked aircraft. Each airline terminal issues a program request to receive certain ones of the program sources, and thereafter, the program materials are distributed to the appropriate aircraft for subsequent playback while in flight. MPEG encoding/decoding is employed to minimize storage requirements. This system relates to an on-ground distribution system and is therefor not germane to the present invention

or to the teachings of the other cited patents, which at least generally relate to systems that are used during aircraft flight. Clearly, the Podowski et al. patent does not relate to a satellite television system that provides a large number of television channels passengers on an aircraft derived from direct broadcast satellites.

In any event, the Examiner has cited individual references that disclose selected aspects of the present invention, but which fail to collectively provide any teaching of how these disparate teachings would be combined to arrive at the present invention. There is no teaching or suggestion contained in the cited references regarding how to combine them. This is clearly blatant hindsight reconstruction of the present invention.

With regard to Claim 1, for example, the cited patents do not provide any teaching of suggestion a receiver coupled to the antenna control means for processing downconverted encoded RF signals to provide encoded video and audio output signals corresponding to the plurality of television channels that are to be distributed to passengers on an aircraft. It is also respectfully submitted that , absent hindsight reconstruction, the cited references do not disclose or suggest a modulator coupled to the receiver for modulating the encoded video and audio signals, a video and audio distribution system coupled to the modulator for distributing the modulated and encoded video and audio signals to each passenger's seat, or seat electronics circuitry coupled to the video and audio distribution system that comprises a demodulator, a decoder and digital to analog converters, and a tuner, for demodulating, decoding and D/A converting the modulated and encoded video and audio signals into signals that may be viewed and heard by a passenger at a seat by way of a display and headphones, as is presently claimed. In particular, it is strenuously argued that the cited references do not contain any teaching or suggestion regarding how they could be combined. The citation of various elements contained in the presently pending Claims and the Examiner's unsupported assertion that they could be combined, does not amount to a teaching by the cited references of the present invention. Clearly, the present specification provides the only teaching of how to make and use the invention recited in the pending Claims. Therefore, it is respectfully submitted that Claim 1 is not obvious in view of the cited references. Accordingly, withdrawal of the Examiner's rejection of Claim 7 is respectfully requested.

Dependent Claims 2, 4 and 7 are considered patentable based upon the patentability of Claim 1. Furthermore, it is respectfully submitted that the detailed

construction of the receiver recited in Claim 7 is not disclosed or suggested by the cited references. Therefore, it is respectfully submitted that Claims 2, 4 and 7 are not obvious in view of the cited references. Accordingly, withdrawal of the Examiner's rejection of Claims 2, 4 and 7 is respectfully requested.

Claim 3 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the Polivka, Muhlhauser, Rabowsky and Podowski patents as applied to claim 1 above, and further in view of U.S. Patent No. 4,866,515 issued to Tagawa et al. Tagawa is cited as disclosing an entertainment system in an aircraft having seat electronics circuitry comprising game electronics for use in providing games as a source of entertainment for passengers on an aircraft. Dependent Claim 3 is considered patentable based upon the patentability of Claim 1. Furthermore, the Polivka et al., Muhlhauser et al., Rabowsky et al. and Podowski et al. patents do not disclose or suggest anything regarding the use of game electronics at a seat of an aircraft. Therefore, it is respectfully submitted that there is no disclosure or suggestion contained in the cited references regarding how they could be combined to provide for the presently claim invention recited in Claim 3. This is taught in the present application, not in the teachings of the Polivka et al., Muhlhauser et al., Rabowsky et al. and Podowski et al. patents. Therefore, it is respectfully submitted that Claim 3 is not obvious in view of the cited references. Accordingly, withdrawal of the Examiner's rejection of Claim 3 is respectfully requested.

Claim 8 and 9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the Polivka, Muhlhauser and Rabowsky patents. Independent method Claim 8 contains substantially the same limitations as independent Claim 1, but recited as a methodology. It is respectfully submitted that Claim 8 is patentable for the same reasons argued above with regard to Claim 1.

The Examiner indicated that Claims 5 and 6 would be allowable if rewritten or amended to overcome the rejections under 35 U.S.C. § 112 set forth in this Office Action. The finding of allowable subject matter in this application is appreciated. Claims 5 and 6 are considered patentable based upon the patentability of Claim 1. However, new Claims 10 and 11 have been added that recite the subject matter of Claims 5 and 6 and which comply with the Examiner's indication of allowability. Claim 5 includes the subject matter contained in Claims 1 and 4 from which Claim 5 depends. Allowance of Claims 10 and 11 is respectfully requested.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure to the extent indicated by the Examiner.

In view of the above, it is respectfully submitted that all presently pending Claims are not anticipated by, nor are they obvious in view of, the cited patents, and are therefore patentable. Accordingly, it is respectfully submitted that the present application is in condition for allowance. Reconsideration and allowance of this application are earnestly solicited.

Respectfully Submitted,

Georgann S. Grunebach
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#16

Interview Summary

Application No.	Applicant(s)
08/667,225	SKLAR et al.
Examiner	**Group Art Unit**
Chris Grant	2602

All participants (applicant, applicant's representative, PTO personnel):

(1) *Chris Grant* (3) _____

(2) *Georgann Grunebach* (4) _____

Date of Interview *Aug 11 & 12, 1997*

Type: ☒ Telephonic ☐ Personal (copy is given to ☐ applicant ☐ applicant's representative).

Exhibit shown or demonstration conducted: ☐ Yes ☒ No. If yes, brief description:

Agreement ☒ was reached. ☐ was not reached.

Claim(s) discussed: *1, 4, 8, 10, and 11*

Identification of prior art discussed:
none

Description of the general nature of what was agreed to if an agreement was reached, or any other comments:
Discussed changes to place the application in condition for allowance as indicated in the attached Office Action.

(A fuller description, if necessary, and a copy of the amendments, if available, which the examiner agreed would render the claims allowable must be attached. Also, where no copy of the amendents which would render the claims allowable is available, a summary thereof must be attached.)

1. ☒ It is not necessary for applicant to provide a separate record of the substance of the interview.

Unless the paragraph above has been checked to indicate to the contrary, A FORMAL WRITTEN RESPONSE TO THE LAST OFFICE ACTION IS NOT WAIVED AND MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a response to the last Office action has already been filed, APPLICANT IS GIVEN ONE MONTH FROM THIS INTERVIEW DATE TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW.

2. ☐ Since the Examiner's interview summary above (including any attachments) reflects a complete response to each of the objections, rejections and requirements that may be present in the last Office action, and since the claims are now allowable, this completed form is considered to fulfill the response requirements of the last Office action. Applicant is not relieved from providing a separate record of the interview unless box 1 above is also checked.

Examiner Note: You must sign and stamp this form unless it is an attachment to a signed Office action.

UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
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Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/667,225	06/19/96	SKLAR R	PD-A96005

E2M1/0818

PATENT DOCKET ADMINISTRATION
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EXAMINER	
GRANT, C	
ART UNIT	**PAPER NUMBER**
2602	7/8

DATE MAILED: 08/19/97

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

PTO-90C (Rev. 2/95)
*U.S. GPO: 1997-422-108/00004

1- File Copy

Notice of Allowability

Application No.	Applicant(s)
08/667,225	SKLAR et al.
Examiner	**Group Art Unit**
Chris Grant	2602

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance and Issue Fee Due or other appropriate communication will be mailed in due course.

☒ This communication is responsive to *5/9/97 amendment*.

☒ The allowed claim(s) is/are *1-9*.

☐ The drawings filed on _____ are acceptable.

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

A SHORTENED STATUTORY PERIOD FOR RESPONSE to comply with the requirements noted below is set to EXPIRE **THREE MONTHS** FROM THE "DATE MAILED" of this Office action. Failure to timely comply will result in ABANDONMENT of this application. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

☐ Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION, PTO-152, which discloses that the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.

☐ Applicant MUST submit NEW FORMAL DRAWINGS

☐ because the originally filed drawings were declared by applicant to be informal.

☐ including changes required by the Notice of Draftsperson's Patent Drawing Review, PTO-948, attached hereto or to Paper No. _____.

☐ including changes required by the proposed drawing correction filed on _____, which has been approved by the examiner.

☐ including changes required by the attached Examiner's Amendment/Comment.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the reverse side of the drawings. The drawings should be filed as a separate paper with a transmittal lettter addressed to the Official Draftsperson.

☐ Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Any response to this letter should include, in the upper right hand corner, the APPLICATION NUMBER (SERIES CODE/SERIAL NUMBER). If applicant has received a Notice of Allowance and Issue Fee Due, the ISSUE BATCH NUMBER and DATE of the NOTICE OF ALLOWANCE should also be included.

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

☒ Interview Summary, PTO-413

☒ Examiner's Amendment/Comment

☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

☐ Examiner's Statement of Reasons for Allowance

Chris Grant

CHRISTOPHER C. GRANT
PATENT EXAMINER

H-7/B
mail
8-14-97

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. Authorization for this examiner's amendment was given in a telephone interview with Georgann Grunebach on 8/11/97 and 8/12/97.

The application has been amended as follows:

IN THE CLAIMS:

a) In claim 1, line 8, after "onto", --encoded-- has been inserted.

b) In claim 1, line 8, "received" has been changed to --the--.

c) In claim 4, line 5, "decoder" has been deleted.

d) In claim 4, line 5, "received" has been deleted.

e) In claim 8, line 5, "received" has been deleted.

f) Claims 10 and 11 have been canceled without prejudice.

Note that claims 10 and 11 are rewritten limitations of claims 5 and 6 respectively. Claims 10 and 11 were canceled because they contain 112 problems.

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chris Grant whose telephone number is (703) 305-4755. The examiner can normally be reached on Monday-Friday from 8:00am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Peng, can be reached on (703) 305-4702. The fax phone number for this Group is (703) 308-5399.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305 3900.

Chris Grant

Chris Grant

August 12, 1997

CHRISTOPHER C. GRANT
PATENT EXAMINER